Amendments to the Claims

Claim 1 (currently amended): A method of producing a crystalline solid-state layer by chemical vapor deposition, which comprises:

providing a reactor chamber with an interior space and a reactor wall having a first side formed with inlet openings communicating with the interior space and a second side;

mounting a substrate having a surface at the second side of the reaction wall in the interior space of the reactor chamber;

providing a distributor plate in the interior space of the reactor chamber;

setting a distance between the distributor plate and the substrate of less than 2 cm;

performing chemical vapor deposition by introducing into the interior space starting gases containing elements of a solid-state layer to be deposited on the surface of the substrate and at least one auxiliary substance through the inlet openings;

providing the auxiliary substance in a form containing molecules having a dipole moment and a property of briefly attaching themselves, during a deposition process, to the surface of the substrate with a dipole moment perpendicular to the surface of the substrate in order to dictate a crystal structure of the solid-state layer;

providing the reactor chamber with a gas outlet; ~~and~~

pumping away reaction products through the gas outlet;

providing the reactor chamber with a further gas outlet opening formed in the reactor wall downstream of the substrate;

providing a connecting line directly connecting the gas outlet opening to one of the inlet openings located upstream of the distributor plate; and

configuring, in the connecting line, a valve for controlling gas flow.

Claim 2 (previously amended): The method according to claim 1, wherein the step of introducing the auxiliary substance includes feeding the auxiliary substance into the interior space from an external supply source.

Claim 3 (original): The method according to claim 2, which comprises providing the external supply source as a storage container.

Claim 4 (previously amended): The method according to claim 1, which comprises:

providing the auxiliary substance substantially from reaction products being pumped away from the interior space during the chemical vapor deposition.

Claim 5 (original): The method according to claim 1, which comprises providing the solid-state layer as a layer selected from the group consisting of a ferroelectric layer and a paraelectric layer.

Claim 6 (previously amended): The method according to claim 5, which comprises providing the solid-state layer with a Perovskite structure.

Claim 7 (previously amended): The method according to claim 1, which comprises:

setting the distance between the distributor plate and the substrate preferably at approximately 1 cm.

Claim 8 (previously amended): The method according to claim 1, which comprises providing the distributor plate as a perforated plate.

Claim 9 (previously amended): The method according to claim 1, which comprises introducing a carrier gas through the inlet openings.

Claims 10-11 (cancelled).